

SEQUENCE LISTING

(1) GENERAL INFORMATION:

- (i) APPLICANT: KAWAKAMI, YUTAKA; ROSENBERG, STEVEN A.
- (ii) TITLE OF INVENTION: MELANOMA ANTIGENS AND THEIR USE IN DIAGNOSTIC AND THERAPEUTIC METHODS
- (iii) NUMBER OF SEQUENCES: 126
- (iv) CORRESPONDENCE ADDRESS:  
(A) ADDRESSEE: MORGAN & FINNEGAN, L.L.P.  
(B) STREET: 345 PARK AVENUE  
(C) CITY: NEW YORK  
(D) STATE: NEW YORK  
(E) COUNTRY: USA  
(F) ZIP: 10154
- (v) COMPUTER READABLE FORM:  
(A) MEDIUM TYPE: FLOPPY DISK  
(B) COMPUTER: IBM PC COMPATIBLE  
(C) OPERATING SYSTEM: PC-DOS/MS-DOS  
(D) SOFTWARE: ASCII
- (vi) CURRENT APPLICATION DATA:  
(A) APPLICATION NUMBER: US/08/417,174  
(B) FILING DATE: 05-APR-1995
- (vii) PRIOR APPLICATION DATA:  
(A) APPLICATION NUMBER: US/08/231,565  
(B) FILING DATE: 22-APR-1994  
(C) CLASSIFICATION:
- (viii) ATTORNEY/AGENT INFORMATION:  
(A) NAME: CAROL M. GRUPPI  
(B) REGISTRATION NUMBER: 37,341  
(C) REFERENCE/DOCKET NUMBER: 2026-4124US1
- (ix) TELECOMMUNICATION INFORMATION:  
(A) TELEPHONE: (212) 758-4800  
(B) TELEFAX: (212) 751-6849  
(C) TELEX: 421792

(2) INFORMATION FOR SEQ ID NO: 1:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 1559  
(B) TYPE: NUCLEOTIDE  
(C) STRANDEDNESS: DOUBLE  
(D) TOPOLOGY: UNKNOWN

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

119

CCCAGGCTGG AGTGCAATGG CGCGATCTTG GCTCACCATA	1040
ACCTCCGCCT CCCAGGTTCA AGCAATTCTC CTGCCTTAGC	1080
CTCCTGAGTA GCTGGGATTA CAGGCGTGCG CCACTATGCC	1120
TGACTAATTT TGTAGTTTTA GTAGAGACGG GGTTCCTCCA	1160
TGTTGGTCAG GCTGGTCTCA AACTCCTGAC CTCAGGTGAT	1200
CTGCCCCGCT CAGCCTCCCA AAGTGCTGGA ATTACAGGCG	1240
TGAGCCACCA CGCCTGGCTG GATCCTATAT CTTAGGTAAG	1280
ACATATAACG CAGTCTAATT ACATTTCACT TCAAGGCTCA	1320
ATGCTATTCT AACTAATGAC AAGTATTTTC TACTAAACCA	1360
GAAATTGGTA GAAGGATTTA AATAAGTAAA AGCTACTATG	1400
TACTGCCTTA GTGCTGATGC CTGTGTACTG CCTTAAATGT	1440
ACCTATGGCA ATTTAGCTCT CTTGGGTTCC CAAATCCCTC	1480
TCACAAGAAT GTGCAGAAGA AATCATAAAG GATCAGAGAT	1520
TCTGAAAAAA AAAAAAAAAA AAAAAAAAAA AAAAAAAAAA	1559

(2) INFORMATION FOR SEQ ID NO: 2:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 118
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

Met	Pro	Arg	Glu	Asp	Ala	His	Phe	Ile	Tyr	Gly	Tyr	Pro	Lys
1				5					10				
Lys	Gly	His	Gly	His	Ser	Tyr	Thr	Thr	Ala	Glu	Glu	Ala	Ala
15				20					25				
Gly	Ile	Gly	Ile	Leu	Thr	Val	Ile	Leu	Gly	Val	Leu	Leu	Leu
	30				35					40			
Ile	Gly	Cys	Trp	Tyr	Cys	Arg	Arg	Asn	Gly	Tyr	Arg	Ala	
		45				50					55		
Leu	Met	Asp	Lys	Ser	Leu	His	Val	Gly	Thr	Gln	Cys	Ala	Leu
		60					65					70	
Thr	Arg	Arg	Cys	Pro	Gln	Glu	Gly	Phe	Asp	His	Arg	Asp	Ser
			75					80					

Lys Val Ser Leu Gln Glu Lys Asn Cys Glu Pro Val Val Pro  
85 90 95  
Asn Ala Pro Pro Ala Tyr Glu Lys Leu Ser Ala Glu Gln Ser  
100 105 110  
Pro Pro Pro Tyr Ser Pro  
115

(2) INFORMATION FOR SEQ ID NO: 3:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

Thr Thr Ala Glu Glu Ala Ala Gly Ile  
1 5

(2) INFORMATION FOR SEQ ID NO: 4:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

Ala Ala Gly Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 5:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

Gly Ile Gly Ile Leu Thr Val Ile Leu  
1 5

(2) INFORMATION FOR SEQ ID NO: 6:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

Gly Ile Leu Thr Val Ile Leu Gly Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 7:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

Ile Leu Thr Val Ile Leu Gly Val Leu  
1 5

(2) INFORMATION FOR SEQ ID NO: 8:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

Leu Thr Val Ile Leu Gly Val Leu Leu  
1 5

(2) INFORMATION FOR SEQ ID NO: 9:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:

Thr Val Ile Leu Gly Val Leu Leu Leu  
1 5

(2) INFORMATION FOR SEQ ID NO: 10:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:

Val Ile Leu Gly Val Leu Leu Leu Ile  
1 5

(2) INFORMATION FOR SEQ ID NO: 11:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:

Ala Leu Met Asp Lys Ser Leu His Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 12:

- (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:

Ser Leu His Val Gly Thr Gln Cys Ala  
1 5

(2) INFORMATION FOR SEQ ID NO: 13:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:

Pro Val Val Pro Asn Ala Pro Pro Ala  
1 5

(2) INFORMATION FOR SEQ ID NO: 14:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:

Asn Ala Pro Pro Ala Tyr Glu Lys Leu  
1 5

(2) INFORMATION FOR SEQ ID NO: 15:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 10
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:

(2) INFORMATION FOR SEQ ID NO: 16:

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:

(2) INFORMATION FOR SEQ ID NO: 17:

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17:

(2) INFORMATION FOR SEQ ID NO: 18:

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 18:



Ala Ala Gly Ile Gly Ile Leu Thr Val Ile  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 19:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 10  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 19:

Gly Ile Leu Thr Val Ile Leu Gly Val Leu  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 20:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 10  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 20:

Ile Leu Thr Val Ile Leu Gly Val Leu Leu  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 21:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 10  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 21:

Leu Thr Val Ile Leu Gly Val Leu Leu Leu  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 22:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 10  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 22:

Thr Val Ile Leu Gly Val Leu Leu Ile  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 23:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 10  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 23:

Arg Ala Leu Met Asp Lys Ser Leu His Val  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 24:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 10  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 24:

Ser Leu His Val Gly Thr Gln Cys Ala Leu  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 25:

- (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 25:

Ser Leu Gln Glu Lys Asn Cys Glu Pro Val  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 26:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 2172
  - (B) TYPE: nucleotide
  - (C) STRANDEDNESS: Double
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 26:

GTCGACGGCC ATTACCAATC GCGACCGGGA AGAACACAAT	40
GGATCTGGTG CTAAAAAGAT GCCTTCTTCA TTTGGCTGTG	80
ATAGGTGCTT TGCTGGCTGT GGGGGCTACA AAAGTACCCA	120
GAAACCAGGA CTGGCTTGGT GTCTCAAGGC AACTCAGAAC	160
CAAAGCCTGG AACAGGCAGC TGTATCCAGA GTGGACAGAA	200
GCCCAGAGAC TTGACTGCTG GAGAGGTGGT CAAGTGTCCC	240
TCAAGGTCAG TAATGATGGG CCTACACTGA TTGGTGCAAA	280
TGCCTCCTTC TCTATTGCCT TGAACCTCCC TGGAAGCCAA	320
AAGGTATTGC CAGATGGGCA GGTATCTGG GTCAACAATA	360
CCATCATCAA TGGGAGCCAG GTGTGGGGAG GACAGCCAGT	400
GTATCCCCAG GAAACTGACG ATGCCTGCAT CTTCCCTGAT	440
GGTGGACCTT GCCCATCTGG CTCTTGGTCT CAGAAGAGAA	480
GCTTTGTTTA TGTCTGGAAG ACCTGGGGCC AATACTGGCA	520
ATTTCTAGGG GGCCCAGTGT CTGGGCTGAG CATTGGGACA	560

GGCAGGGCAA	TGCTGGGCAC	ACACACCATG	GAAGTGA CTG	600
TCTACCATCG	CCGGGGATCC	CGGAGCTATG	TGCCTCTTGC	640
TCATTCCAGC	TCAGCCTTCA	CCATTACTGA	CCAGGTGCCT	680
TTCTCCGTGA	GCGTGTCCCA	GTTGCGGGCC	TTGGATGGAG	720
GGAACAAGCA	CTTCCTGAGA	AATCAGCCTC	TGACCTTTGC	760
CCTCCAGCTC	CATGACCCCA	GTGGCTATCT	GGCTGAAGCT	800
GACCTCTCCT	ACACCTGGGA	CTTTGGAGAC	AGTAGTGGAA	840
CCCTGATCTC	TCGGGCACTT	GTGGTCACTC	ATACTTACCT	880
GGAGCCTGGC	CCAGTCACTG	CCCAGGTGGT	CCTGCAGGCT	920
GCCATTCTC	TCACCTCCTG	TGGCTCCTCC	CCAGTTCCAG	960
GCACCACAGA	TGGGCACAGG	CCAAGTGCAG	AGGCCCTTAA	1000
CACCACAGCT	GGCCAAGTGC	CTACTACAGA	AGTTGTGGGT	1040
ACTACACCTG	GTCAGGCGCC	AACTGCAGAG	CCCTCTGGAA	1080
CCACATCTGT	GCAGGTGCCA	ACCACTGAAG	TCATAAGCAC	1120
TGCACCTGTG	CAGATGCCAA	CTGCAGAGAG	CACAGGTATG	1160
ACACCTGAGA	AGGTGCCAGT	TTCAGAGGTC	ATGGGTACCA	1200
CACTGGCAGA	GATGTCAACT	CCAGAGGCTA	CAGGTATGAC	1240
ACCTGCAGAG	GTATCAATTG	TGGTGCTTTC	TGGAACCACA	1280
GCTGCACAGG	TAACAAGTAC	AGAGTGGGTG	GAGACCACAG	1320
CTAGAGAGCT	ACCTATCCCT	GAGCCTGAAG	GTCCAGATGC	1360
CAGCTCAATC	ATGTCTACGG	AAAGTATTAC	AGGTTCCCTG	1400
GGCCCCCTGC	TGGATGGTAC	AGCCACCTTA	AGGCTGGTGA	1440
AGAGACAAGT	CCCCCTGGAT	TGTGTTCTGT	ATCGATATGG	1480
TTCCTTTTCC	GTCACCCTGG	ACATTGTCCA	GGGTATTGAA	1520
AGTGCCGAGA	TCCTGCAGGC	TGTGCCGTCC	GGTGAGGGGG	1560
ATGCATTTGA	GCTGACTGTG	TCCTGCCAAG	GCGGGCTGCC	1600
CAAGGAAGCC	TGCATGGAGA	TCTCATCGCC	AGGGTGCCAG	1640

CCCCCTGCCC AGCGGCTGTG CCAGCCTGTG CTACCCAGCC	1680
CAGCCTGCCA GCTGGTTCTG CACCAGATAC TGAAGGGTGG	1720
CTCGGGGACA TACTGCCTCA ATGTGTCTCT GGCTGATACC	1760
AACAGCCTGG CAGTGGTCAG CACCCAGCTT ATCATGCCTG	1800
GTCAAGAAGC AGGCCTTGGG CAGGTTCCGC TGATCGTGGG	1840
CATCTTGCTG GTGTTGATGG CTGTGGTCCT TGCATCTCTG	1880
ATATATAGGC GCAGACTTAT GAAGCAAGAC TTCTCCGTAC	1920
CCCAGTTGCC ACATAGCAGC AGTCACTGGC TGCCTCTACC	1960
CCGCATCTTC TGCTCTTGTC CCATTGGTGA GAACAGCCCC	2000
CTCCTCAGTG GGCAGCAGGT CTGAGTACTC TCATATGATG	2040
CTGTGATTTT CCTGGAGTTG ACAGAAACAC CTATATTTCC	2080
CCCAGTCTTC CCTGGGAGAC TACTATTAAC TGAAATAAAT	2120
ACTCAGAGCC TGAAAAAAAA TAAAAAAAAA AAAAAAAAAA	2160
AAAAAAAAAA AA	2172

(2) INFORMATION FOR SEQ ID NO: 27:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 661
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 27:

Met	Asp	Leu	Val	Leu	Lys	Arg	Cys	Leu	Leu	His	Leu
1				5					10		
Ala	Val	Ile	Gly	Ala	Leu	Leu	Ala	Val	Gly	Ala	Thr
		15					20				
Lys	Val	Pro	Arg	Asn	Gln	Asp	Trp	Leu	Gly	Val	Ser
25				30					35		
Arg	Gln	Leu	Arg	Thr	Lys	Ala	Trp	Asn	Arg	Gln	Leu
			40					45			
Tyr	Pro	Glu	Trp	Thr	Glu	Ala	Gln	Arg	Leu	Asp	Cys
	50				55					60	
Trp	Arg	Gly	Gly	Gln	Val	Ser	Leu	Lys	Val	Ser	Asn
			65					70			

Asp	Gly	Pro	Thr	Leu	Ile	Gly	Ala	Asn	Ala	Ser	Phe	
		75					80					
Ser	Ile	Ala	Leu	Asn	Phe	Pro	Gly	Ser	Gln	Lys	Val	
85				90						95		
Leu	Pro	Asp	Gly	Gln	Val	Ile	Trp	Val	Asn	Asn	Thr	
			100					105				
Ile	Ile	Asn	Gly	Ser	Gln	Val	Trp	Gly	Gly	Gln	Pro	
110						115					120	
Val	Tyr	Pro	Gln	Glu	Thr	Asp	Asp	Ala	Cys	Ile	Phe	
				125					130			
Pro	Asp	Gly	Gly	Pro	Cys	Pro	Ser	Gly	Ser	Trp	Ser	
		135					140					
Gln	Lys	Arg	Ser	Phe	Val	Tyr	Val	Trp	Lys	Thr	Trp	
145				150						155		
Gly	Gln	Tyr	Trp	Gln	Phe	Leu	Gly	Gly	Pro	Val	Ser	
			160					165				
Gly	Leu	Ser	Ile	Gly	Thr	Gly	Arg	Ala	Met	Leu	Gly	
170						175					180	
Thr	His	Thr	Met	Glu	Val	Thr	Val	Tyr	His	Arg	Arg	
				185					190			
Gly	Ser	Arg	Ser	Tyr	Val	Pro	Leu	Ala	His	Ser	Ser	
		195					200					
Ser	Ala	Phe	Thr	Ile	Thr	Asp	Gln	Val	Pro	Phe	Ser	
205				210						215		
Val	Ser	Val	Ser	Gln	Leu	Arg	Ala	Leu	Asp	Gly	Gly	
			220					225				
Asn	Lys	His	Phe	Leu	Arg	Asn	Gln	Pro	Leu	Thr	Phe	
230						235					240	
Ala	Leu	Gln	Leu	His	Asp	Pro	Ser	Gly	Tyr	Leu	Ala	
				245					250			
Glu	Ala	Asp	Leu	Ser	Tyr	Thr	Trp	Asp	Phe	Gly	Asp	
		255					260					
Ser	Ser	Gly	Thr	Leu	Ile	Ser	Arg	Ala	Leu	Val	Val	
260				265						270		
Thr	His	Thr	Tyr	Leu	Glu	Pro	Gly	Pro	Val	Thr	Ala	
			275					280				
Gln	Val	Val	Leu	Gln	Ala	Ala	Ile	Pro	Leu	Thr	Ser	
285					290						295	
Cys	Gly	Ser	Ser	Pro	Val	Pro	Gly	Thr	Thr	Asp	Gly	
				300					305			
His	Arg	Pro	Thr	Ala	Glu	Ala	Pro	Asn	Thr	Thr	Ala	
		310					315					
Gly	Gln	Val	Pro	Thr	Thr	Glu	Val	Val	Gly	Thr	Thr	
320				325						330		
Pro	Gly	Gln	Ala	Pro	Thr	Ala	Glu	Pro	Ser	Gly	Thr	
			335					340				
Thr	Ser	Val	Gln	Val	Pro	Thr	Thr	Glu	Val	Ile	Ser	
345						350					355	
Thr	Ala	Pro	Val	Gln	Met	Pro	Thr	Ala	Glu	Ser	Thr	
				360					365			
Gly	Met	Thr	Pro	Glu	Lys	Val	Pro	Val	Ser	Glu	Val	
		370					375					
Met	Gly	Thr	Thr	Leu	Ala	Glu	Met	Ser	Thr	Pro	Glu	
380				385						390		

Ala	Thr	Gly	Met	Thr	Pro	Ala	Glu	Val	Ser	Ile	Val
			395					400			
Val	Leu	Ser	Gly	Thr	Thr	Ala	Ala	Gln	Val	Thr	Thr
	405					410					415
Thr	Glu	Trp	Val	Glu	Thr	Thr	Ala	Arg	Glu	Leu	Pro
				420					425		
Ile	Pro	Glu	Pro	Glu	Gly	Pro	Asp	Ala	Ser	Ser	Ile
		430					435				
Met	Ser	Thr	Glu	Ser	Ile	Thr	Gly	Ser	Leu	Gly	Pro
440					445					450	
Leu	Leu	Asp	Gly	Thr	Ala	Thr	Leu	Arg	Leu	Val	Lys
			455					460			
Arg	Gln	Val	Pro	Leu	Asp	Cys	Val	Leu	Tyr	Arg	Tyr
	465					470					475
Gly	Ser	Phe	Ser	Val	Thr	Leu	Asp	Ile	Val	Gln	Gly
				480					490		
Ile	Glu	Ser	Ala	Glu	Ile	Leu	Gln	Ala	Val	Pro	Ser
		495					500				
Gly	Glu	Gly	Asp	Ala	Phe	Glu	Leu	Thr	Val	Ser	Cys
505				510						515	
Gln	Gly	Gly	Leu	Pro	Lys	Glu	Ala	Cys	Met	Glu	Ile
			520					525			
Ser	Ser	Pro	Gly	Cys	Gln	Pro	Pro	Ala	Gln	Arg	Leu
	530					535					540
Cys	Gln	Pro	Val	Leu	Pro	Ser	Pro	Ala	Cys	Gln	Leu
				545					550		
Val	Leu	His	Gln	Ile	Leu	Lys	Gly	Gly	Ser	Gly	Thr
		555					560				
Tyr	Cys	Leu	Asn	Val	Ser	Leu	Ala	Asp	Thr	Asn	Ser
565				570						575	
Leu	Ala	Val	Val	Ser	Thr	Gln	Leu	Ile	Met	Pro	Gly
			580					585			
Gln	Glu	Ala	Gly	Leu	Gly	Gln	Val	Pro	Leu	Ile	Val
	590					595					600
Gly	Ile	Leu	Leu	Val	Leu	Met	Ala	Val	Val	Leu	Ala
				605					610		
Ser	Leu	Ile	Tyr	Arg	Arg	Arg	Leu	Met	Lys	Gln	Asp
		615					620				
Phe	Ser	Val	Pro	Gln	Leu	Pro	His	Ser	Ser	Ser	His
625				630						635	
Trp	Leu	Arg	Leu	Pro	Arg	Ile	Phe	Cys	Ser	Cys	Pro
			640					645			
Ile	Gly	Glu	Asn	Ser	Pro	Leu	Leu	Ser	Gly	Gln	Gln
	650					655					660
Val											

(2) INFORMATION FOR SEQ ID NO: 28:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 28:

Val Pro Gly Ile Leu Leu Thr  
1 5

(2) INFORMATION FOR SEQ ID NO: 29:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 7
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 29:

Leu Leu Ser Gly Gln Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 30:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 12
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 30:

Pro Pro Gln Trp Ala Ala Gly Leu Ser Thr Leu Ile  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 31:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 31:



Met Leu Leu Ala Val Leu Tyr Cys Leu  
1 5

(2) INFORMATION FOR SEQ ID NO: 32:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 32:

Tyr Met Asn Gly Thr Met Ser Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 33:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 10
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 33:

Leu Leu Asp Gly Thr Ala Thr Leu Arg Leu  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 34:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 10
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 34:

Val Leu Tyr Arg Tyr Gly Ser Phe Ser Val  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 35:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 10
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 35:

Ala Leu Asp Gly Gly Asn Lys His Phe Leu  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 36:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 36:

Val Leu Lys Arg Cys Leu Leu His Leu  
1 5

(2) INFORMATION FOR SEQ ID NO: 37:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 10
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 37:

Val Leu Pro Ser Pro Ala Cys Gln Leu Val  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 38:

- (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 38:

Ser Leu Ala Asp Thr Asn Ser Leu Ala Val  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 39:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 39:

Ser Val Ser Val Ser Gln Leu Arg Ala  
1 5

(2) INFORMATION FOR SEQ ID NO: 40:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 40:

Tyr Leu Glu Pro Gly Pro Val Thr Ala  
1 5

(2) INFORMATION FOR SEQ ID NO: 41:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown

- (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 41:

Leu Asn Val Ser Leu Ala Asp Thr Asn  
1 5

(2) INFORMATION FOR SEQ ID NO: 42:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 58
  - (B) TYPE: NUCLEOTIDE
  - (C) STRANDEDNESS: DOUBLE
  - (D) TOPOLOGY: UNKNOWN
- (ii) MOLECULE TYPE: cDNA
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 42:

GGACAGGCCG AGGCGGCCTT TTTTTTTTTT TTTTTTTTTT 40  
TTTTTTTTTT TTTTTTTT 58

(2) INFORMATION FOR SEQ ID NO: 43:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 12
  - (B) TYPE: NUCLEOTIDE
  - (C) STRANDEDNESS: DOUBLE
  - (D) TOPOLOGY: UNKNOWN
- (ii) MOLECULE TYPE: cDNA
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 43:

CCAATCGCGA CC 12

(2) INFORMATION FOR SEQ ID NO: 44:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 15
  - (B) TYPE: NUCLEOTIDE
  - (C) STRANDEDNESS: DOUBLE
  - (D) TOPOLOGY: UNKNOWN
- (ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 44:

GGTCGCGATT GGTA

15

(2) INFORMATION FOR SEQ ID NO: 45:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 45:

Gly Ile Leu Gly Phe Val Phe Thr Leu  
1 5

(2) INFORMATION FOR SEQ ID NO: 46:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 46:

Lys Thr Trp Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 47:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 47:

Lys Thr Trp Gly Gln Tyr Trp Gln Val Leu  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 48:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 48:

Ile Thr Asp Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 49:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 10
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 49:

Thr Ile Thr Asp Gln Val Pro Phe Ser Val  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 50:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 50:

Ala Leu Gly Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 51:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 51:

Ala Met Gly Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 52:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 52:

Ala Ile Gly Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 53:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 53:

Trp Ala Gly Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 54:

- (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 54:

Phe Ala Gly Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 55:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 55:

Tyr Ala Gly Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 56:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 56:

Ala Ala Trp Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 57:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown



(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 57:

Ala Ala Phe Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 58:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 58:

Ala Ala Tyr Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 59:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 59:

Lys Leu Gly Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 60:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 60:

Lys Met Gly Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 61:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 61:

Lys Ile Gly Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 62:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 62:

Trp Leu Gly Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 63:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 63:

Phe Leu Gly Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 64:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 64:

Tyr Leu Gly Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 65:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 65:

Ala Leu Trp Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 66:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 66:

Ala Leu Phe Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 67:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 67:

Ala Leu Tyr Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 68:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 68:

Lys Leu Trp Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 69:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 69:

Lys Met Trp Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 70:

- (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 70:

Lys Ile Trp Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 71:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 71:

Trp Thr Trp Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 72:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 72:

Phe Thr Trp Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 73:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown

(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 73:

Tyr Thr Trp Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 74:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 9

(B) TYPE: amino acid

(C) STRANDEDNESS: Unknown

(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 74:

Ala Thr Trp Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 75:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 9

(B) TYPE: amino acid

(C) STRANDEDNESS: Unknown

(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 75:

Leu Thr Trp Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 76:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 9

(B) TYPE: amino acid

(C) STRANDEDNESS: Unknown

(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

Lys Thr Tyr Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 77:

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(i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 9
      (B) TYPE: amino acid
      (C) STRANDEDNESS: Unknown
      (D) TOPOLOGY: Unknown
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(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 77:

Lys Thr Phe Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 78:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 78:

Ala Leu Trp Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 79:

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(i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 9
      (B) TYPE: amino acid
      (C) STRANDEDNESS: Unknown
      (D) TOPOLOGY: Unknown
```

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 79:

Leu Leu Trp Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 80:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 80:

Trp Leu Trp Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 81:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 81:

Phe Leu Trp Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 82:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 82:

Tyr Leu Trp Gly Gln Tyr Trp Gln Val  
1 5



(2) INFORMATION FOR SEQ ID NO: 83:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 83:

Ile Leu Asp Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 84:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 84:

Ile Met Asp Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 85:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 85:

Ile Ile Asp Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 86:

- (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 86:

Phe Thr Asp Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 87:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 87:

Trp Thr Asp Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 88:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 88:

Tyr Thr Asp Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 89:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown

(ii) MOLECULE TYPE: Peptide

Ile Thr Trp Gln Val Pro Phe Ser Val  
1 5

(i) SEQUENCE CHARACTERISTICS:

(ii) MOLECULE TYPE: Peptide

Ile Thr Phe Gln Val Pro Phe Ser Val  
1 5

(i) SEQUENCE CHARACTERISTICS:

(ii) MOLECULE TYPE: Peptide

Ile Thr Tyr Gln Val Pro Phe Ser Val  
1 5

(i) SEQUENCE CHARACTERISTICS:

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 92:

Ile Thr Ala Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 93:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 93:

Ile Thr Met Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 94:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 94:

Ile Thr Ser Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 95:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 95:

Ile Leu Trp Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 96:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 96:

Ile Leu Phe Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 97:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 97:

Ile Leu Tyr Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 98:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 98:

Ile Leu Ala Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 99:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 99:

Ile Leu Met Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 100:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 100:

Ile Leu Ser Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 101:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 101:

Trp Leu Asp Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 102:

- (i) SEQUENCE CHARACTERISTICS:



(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 105:

Tyr Leu Glu Pro Gly Pro Val Thr Leu  
1 5

(2) INFORMATION FOR SEQ ID NO: 106:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 9

(B) TYPE: amino acid

(C) STRANDEDNESS: Unknown

(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 106:

Tyr Leu Glu Pro Gly Pro Val Thr Ile  
1 5

(2) INFORMATION FOR SEQ ID NO: 107:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 9

(B) TYPE: amino acid

(C) STRANDEDNESS: Unknown

(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 107:

Phe Leu Glu Pro Gly Pro Val Thr Ala  
1 5

(2) INFORMATION FOR SEQ ID NO: 108:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 9

(B) TYPE: amino acid

(C) STRANDEDNESS: Unknown

(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide



(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 108:

Trp Leu Glu Pro Gly Pro Val Thr Ala  
1 5

(2) INFORMATION FOR SEQ ID NO: 109:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 109:

Tyr Leu Tyr Pro Gly Pro Val Thr Ala  
1 5

(2) INFORMATION FOR SEQ ID NO: 110:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 110:

Tyr Leu Trp Pro Gly Pro Val Thr Ala  
1 5

(2) INFORMATION FOR SEQ ID NO: 111:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 111:

Tyr Leu Phe Pro Gly Pro Val Thr Ala  
1 5

(2) INFORMATION FOR SEQ ID NO: 112:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 112:

Tyr Leu Met Pro Gly Pro Val Thr Ala  
1 5

(2) INFORMATION FOR SEQ ID NO: 113:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 113:

Tyr Leu Ser Pro Gly Pro Val Thr Ala  
1 5

(2) INFORMATION FOR SEQ ID NO: 114:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 114:

Tyr Leu Ala Pro Gly Pro Val Thr Ala  
1 5

Tyr Leu Met Pro Gly Pro Val Thr Val  
1 5

Tyr Leu Ser Pro Gly Pro Val Thr Val  
1 5

Tyr Leu Ala Pro Gly Pro Val Thr Val  
1 5

## 160

- (A) LENGTH: 9
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 118:

Tyr Leu Tyr Pro Gly Pro Val Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 119:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 119:

Tyr Leu Phe Pro Gly Pro Val Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 120:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 120:

Tyr Leu Trp Pro Gly Pro Val Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 121:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 661  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 121:

Met	Asp	Leu	Val	Leu	Lys	Arg	Cys	Leu	Leu	His	Leu	
1				5					10			
Ala	Val	Ile	Gly	Ala	Leu	Leu	Ala	Val	Gly	Ala	Thr	
		15					20					
Lys	Val	Pro	Arg	Asn	Gln	Asp	Trp	Leu	Gly	Val	Ser	
25				30					35			
Arg	Gln	Leu	Arg	Thr	Lys	Ala	Trp	Asn	Arg	Gln	Leu	
			40					45				
Tyr	Pro	Glu	Trp	Thr	Glu	Ala	Gln	Arg	Leu	Asp	Cys	
	50				55					60		
Trp	Arg	Gly	Gly	Gln	Val	Ser	Leu	Lys	Val	Ser	Asn	
			65					70				
Asp	Gly	Pro	Thr	Leu	Ile	Gly	Ala	Asn	Ala	Ser	Phe	
		75				80						
Ser	Ile	Ala	Leu	Asn	Phe	Pro	Gly	Ser	Gln	Lys	Val	
85				90					95			
Leu	Pro	Asp	Gly	Gln	Val	Ile	Trp	Val	Asn	Asn	Thr	
		100						105				
Ile	Ile	Asn	Gly	Ser	Gln	Val	Trp	Gly	Gly	Gln	Pro	
110					115					120		
Val	Tyr	Pro	Gln	Glu	Thr	Asp	Asp	Ala	Cys	Ile	Phe	
			125					130				
Pro	Asp	Gly	Gly	Pro	Cys	Pro	Ser	Gly	Ser	Trp	Ser	
		135				140						
Gln	Lys	Arg	Ser	Phe	Val	Tyr	Val	Trp	Lys	Thr	Trp	
145				150					155			
Gly	Gln	Tyr	Trp	Gln	Val	Leu	Gly	Gly	Pro	Val	Ser	
		160					165					
Gly	Leu	Ser	Ile	Gly	Thr	Gly	Arg	Ala	Met	Leu	Gly	
170				175						180		
Thr	His	Thr	Met	Glu	Val	Thr	Val	Tyr	His	Arg	Arg	
			185					190				
Gly	Ser	Arg	Ser	Tyr	Val	Pro	Leu	Ala	His	Ser	Ser	
		195				200						
Ser	Ala	Phe	Thr	Ile	Thr	Asp	Gln	Val	Pro	Phe	Ser	
205				210						215		



Cys	Gln	Pro	Val	Leu	Pro	Ser	Pro	Ala	Cys	Gln	Leu
				545					550		
Val	Leu	His	Gln	Ile	Leu	Lys	Gly	Gly	Ser	Gly	Thr
		555					560				
Tyr	Cys	Leu	Asn	Val	Ser	Leu	Ala	Asp	Thr	Asn	Ser
565					570					575	
Leu	Ala	Val	Val	Ser	Thr	Gln	Leu	Ile	Met	Pro	Gly
			580					585			
Gln	Glu	Ala	Gly	Leu	Gly	Gln	Val	Pro	Leu	Ile	Val
	590					595					600
Gly	Ile	Leu	Leu	Val	Leu	Met	Ala	Val	Val	Leu	Ala
			605					610			
Ser	Leu	Ile	Tyr	Arg	Arg	Arg	Leu	Met	Lys	Gln	Asp
		615					620				
Phe	Ser	Val	Pro	Gln	Leu	Pro	His	Ser	Ser	Ser	His
625					630					635	
Trp	Leu	Arg	Leu	Pro	Arg	Ile	Phe	Cys	Ser	Cys	Pro
			640					645			
Ile	Gly	Glu	Asn	Ser	Pro	Leu	Leu	Ser	Gly	Gln	Gln
	650					655					660
Val											

(2) INFORMATION FOR SEQ ID NO: 122:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 122:

Xaa	Xaa	Xaa	Ile	Gly	Ile	Leu	Thr	Xaa
1				5				

(2) INFORMATION FOR SEQ ID NO: 123:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 123:

Xaa Xaa Xaa Gly Gln Tyr Trp Gln Xaa  
1 5

(2) INFORMATION FOR SEQ ID NO: 124:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 124:

Xaa Xaa Xaa Gln Val Pro Phe Ser Xaa  
1 5

(2) INFORMATION FOR SEQ ID NO: 125:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 125:

Xaa Xaa Xaa Pro Gly Pro Val Thr Xaa  
1 5

(2) INFORMATION FOR SEQ ID NO: 126:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 10  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 126:

Phe Leu Pro Ser Asp Tyr Phe Pro Ser Val  
1 5 10